



October 20, 2016

*Via Electronic Mail Only*

Jay Simi  
Water Resources Control Engineer  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670  
[Jay.Simi@waterboards.ca.gov](mailto:Jay.Simi@waterboards.ca.gov)

Re: 303(d) List Revisions

Dear Mr. Simi:

This firm represents the Pyrethroid Working Group (PWG), a coalition of registrants of pyrethroid pesticides. We appreciate the opportunity to comment on the Central Valley Regional Water Quality Control Board's (Central Valley Water Board) proposed revisions to the Clean Water Act Section 303(d) List of Water Quality Limited Segments (303(d) List). This letter provides comments related to the age of the data used to support water segment listing determinations in Kaseberg Creek, Pleasant Grove Creek, and the American River, as well as concerns related to the listing of the American River as impaired for bifenthrin.

**I. General Comments**

In general, and as conveyed at the October 14, 2016 workshop in Redding, the PWG recognizes that the 303(d) listing process is difficult, in that volumes of data need to be evaluated and fact sheets need to be prepared. This is a time-consuming task, and there needs to be some level of certainty with respect to the data that is evaluated. As such, this means that for this listing cycle, the data evaluated for making listing decisions was collected in 2010 and earlier. As discussed at the October 14, 2016 workshop, this leads to impairment determinations based on data that is relatively stale and outdated. We appreciate the comments made by Central Valley Water Board staff at the workshop, and that staff are evaluating ways to update these impairment determinations outside of the normal listing cycle where there is better, contemporary data available. Specifically, the PWG supports efforts to bring resolutions to the Central Valley Water Board outside of the listing cycle to delist waterbodies where there is data that supports such delistings.

The PWG also recommends that the Central Valley Water Board consider revising impairment determinations during this process where comments and data are submitted on specific waterbodies. While we recognize that there is a need to set a specific date related to the data solicitation period for preparing the proposed list for public review and comment, the establishment of an end date for that purpose should not prevent Central Valley Water Board

staff from evaluating new data and information that is specifically submitted during the public comment period. In other words, for those waterbodies for which comments and data are provided, there should be a substantive reevaluation as part of the response to comments. This would maintain the level of certainty necessary to prepare the draft list while assuring the public that the comment period serves an appropriate purpose.

In summary, PWG's primary concern with listings for pyrethroid pesticides (bifenthrin, cyfluthrin, lambda-cyhalothrin, cypermethrin, and deltamethrin) in several segments of Kaseberg Creek and Pleasant Grove Creek is that these listings were made with data from 2006 through 2008, and do not accurately reflect the current concentrations of pyrethroid pesticides in these segments. Application of more recent data, as described herein and in the enclosed tables, does not support listings for specific pyrethroid pesticides in some of the listed segments. Similarly, the listings for bifenthrin in the American River are based on outdated organic carbon coefficient values, which overestimate the fraction of bifenthrin that is available to organisms in the water column, and on older water column data from 2009 through 2010. Use of the currently accepted organic carbon coefficient values indicates that the American River does not contain bifenthrin in concentrations that exceed the bifenthrin criteria used in this listing. Additionally, the PWG is concerned that the revised 303(d) List misapplied chronic criteria for bifenthrin and erroneously included unreliable toxicity endpoints for *Hyalella azteca* in coming to the listing determination for bifenthrin in the American River.

## **II. Fewer Segments of Kaseberg Creek and Pleasant Grove Creek Would Meet Criteria for Listing if More Recent Data on Pyrethroid Concentrations in These Segments Were Considered**

Four segments of Kaseberg Creek and five segments of Pleasant Grove Creek are proposed for listing on the revised 303(d) List as impaired for various pyrethroid pesticides. These listing determinations are based on data gathered nearly ten years ago, in 2006 through 2008. The PWG is concerned that these older data do not represent current use patterns for pyrethrins. More recent pyrethroid sediment chemistry data collected from 2013, 2014, 2015, and 2016 from the same locations in these waterbodies are available and should be used to determine whether the more recent data would still trigger the listings for pyrethrins. The listing policy addresses the use of more recent data for 303(d) listings by stating the following within the Temporal Representation Section: "If the implementation of a management practice(s) has resulted in a change in the water body segment, only recently collected data [since the implementation of the management measure(s)] should be considered." (State Water Resources Control Board, *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (2015) at p. 23 [Listing Policy].) In 2012, labels were changed for pyrethroid pesticides, and such changes are management measures that would support the use of the 2013 through 2016 data sets.

Analysis of newer data for pyrethroid sediment chemistry in Kaseberg Creek and Pleasant Grove Creek shows that certain pyrethroid pesticides in some listed segments would no longer meet the criteria for listing. The following summarizes the changes in listing

determinations as drawn from this analysis, with the data and sampling locations described in detail in Tables 1-9 in Attachment A.<sup>1</sup> The full dataset supporting the conclusions in Tables 1-9 is further detailed in Attachment B.

For the four Kaseberg Creek segments, use of the newer pyrethroid chemistry data would remove lambda-cyhalothrin from the listing of the Kaseberg Creek tributary to Pleasant Grove Creek segment (where there was only one exceedance in the four-year new dataset) and would remove cyfluthrin from the listing of the Kaseberg Creek unnamed southern tributary from Baseline Road to Timber Creek Golf Course segment (where there was again only one exceedance in the four-year new dataset). (Attachment A, Tables 1, 4.) The rest of the pyrethroid listings for these two segments would remain, because each of the other pyrethroids had at least two exceedances each in these segments. (Attachment A, Tables 1, 4.) The listing determinations for the two remaining Kaseberg Creek segments – Kaseberg Creek unnamed tributary from Green Cove Lane to Del Webb Boulevard, and Kaseberg Creek unnamed southeastern tributary from Silverado Middle School to Timber Creek Golf Course – would remain the same as well, as all listed pyrethroids showed at least two exceedances of the listing criteria.

For the five Pleasant Grove Creek segments, the newer data shows that concentrations of certain pyrethroids have decreased such that four of the five segments would no longer have listings for these pyrethroids. For example, the newer data shows no exceedances for cypermethrin in the Pleasant Grove Creek mainstem segment, which would remove the cypermethrin listing. (Attachment A, Table 5.) Cyfluthrin and deltamethrin listings would be removed from the Pleasant Grove Creek south branch segment. (Attachment A, Table 6.) Cyfluthrin and cypermethrin would be removed from the Pleasant Grove Creek South Branch unnamed southeastern tributary segment, as no exceedances for these pesticides are shown using newer data. (Attachment A, Table 7.) Similarly, newer data shows no exceedances for cyfluthrin and cypermethrin in the Pleasant Grove Creek South Branch northern tributary from Greywood Circle to the Pleasant Grove Creek confluence segment, which would remove listings for those pesticides in this segment as well. (Attachment A, Table 8.) Other listings, including all listings for the Pleasant Grove Creek south branch unnamed tributary to Mt. Tamalpais Drive segment, would remain the same when newer data is used. (Attachment A, Tables 5-9.)

Accordingly, newer data shows that labelling changes may have had an effect on pyrethroid concentrations in Kaseberg Creek and Pleasant Grove Creek. The revised 303(d) List should examine this newer data, as provided in Attachments A and B, and make listing determinations based on this data, as it more accurately reflects the current condition of the waterbodies in question.

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<sup>1</sup> The Listing Policy provides that the minimum number of measured exceedances needed to place a water segment on the 303(d) List for toxicants such as pyrethroids is two or greater if the sample size is 2-24. For larger sample sizes such as 25-36, the number of exceedances would increase to three or greater for an impairment listing, and for sample sizes of 118-129, a total of 11 exceedances or greater would be needed for an impairment listing. The listing conclusions contained herein are based on this guidance, but with the use of more current sediment chemistry data.

### **III. The Bifenthrin Listing for the American River Is Based on Outdated Data and Includes Problematic Endpoints and Chronic Criterion Applications**

The evidence for adding the American River to the 303(d) List for bifenthrin is contained in a dataset collected between 2009 and 2010 at Rainbow Bridge, Sunrise Boulevard, Howe Avenue, and Discovery Park. The listing determination is based on three lines of evidence generated from this dataset. However, this data is outdated, and on occasion uses coefficient values that are also outdated. Moreover, the number of data points used for the listing is relatively small as compared to the over 900 water samples collected by the PWG in the American River from 2011 through 2014.

For example, the partitioning coefficients for bifenthrin used in dissolved concentration calculations ( $K_{DOC}$  and  $K_{OC}$ ) and changes in aquatic life evaluation guidelines have evolved. The  $K_{OC}$  value accepted for bifenthrin has been updated from 237,000 (Laskowski 2002) to 4,228,112 (Fojut 2015). The current  $K_{DOC}$  value for bifenthrin is 1,737,127 (Fojut 2015). The bifenthrin acute evaluation guideline has evolved from 4 ng/L to 0.8 ng/L, whereas the chronic evaluation guideline has evolved from 0.6 ng/L to 0.1 ng/L (Fojut 2010; Fojut 2015).<sup>2</sup> Due to these updates, and the additional data gathered by the PWG, the PWG has reassessed the bifenthrin impairment determination for the American River using the same lines of evidence as used in the Draft California 2014 Integrated Report (303(d) List Report) Supporting Information.

#### **1. First Line of Evidence: Total Bifenthrin Concentrations**

Total bifenthrin concentrations are not representative of the bioavailable fraction available to aquatic organisms. Toxic effects to aquatic organisms are most often a result of exposure to dissolved fractions of chemicals. Large fractions of bifenthrin are expected to partition to organics present in the water column and streambed, thereby reducing concentrations in the water column. This means that the total concentration is not an accurate measure of the toxic effect of bifenthrin on aquatic organisms. For this reason, calculated dissolved bifenthrin concentrations should be used in the analysis of the American River.

#### **2. Second Line of Evidence: Dissolved Bifenthrin Concentrations**

Dissolved bifenthrin concentrations used in the 303(d) List Report were calculated using a  $K_{OC}$  of 237,000. As stated previously, this is an outdated value based on methods that measured total bifenthrin, not freely dissolved bifenthrin. A revised  $K_{OC}$  value for bifenthrin of 4,228,112, based on current methods that measure only freely dissolved bifenthrin, has been developed by Central Valley Water Board staff. Using the older  $K_{OC}$  value of 237,000 substantially overestimates dissolved bifenthrin concentrations. Assuming a dissolved organic carbon (DOC) value of 2 mg/L for the American River, as stated in Weston and

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<sup>2</sup> The acute criterion of 0.8 ng/L and chronic criterion of 0.1 ng/L for bifenthrin are in reference to the 2015 UCD criteria methodology for the 5th percentile.

Lydy (2012), a particulate organic carbon (POC) value of 0.2 (provided in the 303(d) List Report Supporting Information), and the revised KOC (4,228,112) and KDOC (1,737,127) values developed by the Central Valley Water Board staff, there was only one exceedance of the evaluation guideline of 0.6 ng/L and zero exceedances of the acute evaluation guideline of 4 ng/L.<sup>3</sup> When the updated partitioning coefficients are used, even when using only the data provided with the revised 303(d) List, dissolved bifenthrin concentrations are not in exceedance of 2010 UCD bifenthrin evaluation guidelines and are insufficient to support a listing.

3. Third Line of Evidence: Toxicity Testing Demonstrated Toxic Effects to *Hyalella azteca*

The dataset containing toxicity testing results of water samples references 26 samples from Sunrise Boulevard and Howe Avenue. However, the data provided for the American River bifenthrin listing only includes 25 samples from those two locations. The following analyses will include toxicity data for 25 water samples collected at Sunrise Boulevard and Howe Avenue and an additional 14 samples collected from Discovery Park to provide a more robust analysis.<sup>4</sup>

Of the 39 samples mentioned above, 20 resulted in significant effects to *Hyalella azteca* when compared to controls. However, it is important to note that 11 of 20 samples did not have detectable concentrations of bifenthrin, and 17 of those 20 samples contained chlorpyrifos. Data suggests that chlorpyrifos, or other contaminants, in the water samples may be contributing to the observed toxicity to *Hyalella azteca*, not bifenthrin. The Central Valley Water Board should conduct additional analyses of metals and other organics before relying upon toxicity values based on water samples with multiple pesticides or other contaminants.

Additionally, when considering only mortality as an endpoint, 15 rather than 20 water samples resulted in significant effects to *Hyalella azteca* relative to the control, and 7 out of the 15 samples had no detectable concentrations of bifenthrin. Weston and Lydy (2012) scored test endpoints as organisms able to swim normally, with the remainder being either dead or paralyzed. The inclusion of impaired, but still live, organisms and dead organisms may overestimate toxicity. To our knowledge, there is no standard methodology for evaluating and scoring immobilization (or paralysis) as an endpoint, which raises questions about the reliability of such determinations. Additionally, reversal of the sublethal effects of pyrethroids is an important consideration.

The data provided with the 303(d) List should be revised to reflect more accurate concentrations of and effects of bifenthrin on *Hyalella azteca* in the American River.

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<sup>3</sup> The one exceedance of the chronic criterion is for a *single* sample collected on February 18, 2009 and should therefore not be compared to the chronic evaluation guideline. It should be noted that DOC (2 mg/L) and POC (0.2 mg/L) values used in dissolved concentration calculations were extrapolated from a few samples and were not measured in every water sample.

<sup>4</sup> It is unclear why Discovery Park data was excluded from the previous analysis of the American River.

4. Application of Acute and Chronic Evaluation Guidelines

The PWG is concerned that the chronic evaluation guideline has been inappropriately applied to the data in question. The proposed bifenthrin listing for the American River indicates that 35 individual whole-water samples were collected, resulting in 26 four-day average data points. The data collected were purportedly collected after four storm events in February through May 2009, once in March 2009 after two weeks of no rain, after a two-day storm event on October 13-14, 2009, and a six-day storm event from January 17-22, 2010. Review of the dataset used in the American River bifenthrin determination found that single samples were collected following four-day or greater storm events, and accordingly do not represent average concentrations over a four-day or greater period. Furthermore, the dataset provided in the 303(d) List Report Supporting Information demonstrates that each sample taken for a particular storm event in 2009 was associated with a single toxicity test. It is not appropriate to use a four-day average concentration of samples and associate it with a single toxicity test. Rather, given the use of a single representative sample for each storm event in 2009, the acute evaluation guideline for bifenthrin, rather than the chronic evaluation guideline, should apply.

In contrast, the chronic evaluation guideline for bifenthrin should apply to the six-day storm event from January 17-22, 2010, due to the collection of four or five samples over the duration of the storm. The average dissolved bifenthrin concentrations during the six-day storm at Sunrise Boulevard, Howe Avenue, and Discovery Park on the American River were 0, 0.21, and 0.15 ng/L, respectively. While these values do not exceed the 2010 chronic evaluation guideline of 0.6 ng/L, two locations do exceed the chronic evaluation guideline of 0.1 ng/L that is currently under consideration by the Central Valley Water Board. However, it is worth noting that these dissolved concentrations were calculated using at or near worst-case scenario DOC (2 mg/L) and POC (0.2 mg/L) concentrations that are not likely typical of a storm event. To our knowledge, actual DOC and POC were not collected during this particular six-day storm event.

The PWG collected 105 water samples from the American River in 2011, 527 samples in 2012, 242 samples in 2013, and 62 samples in 2014 (Attachment C, Table A1). Total organic carbon (TOC) was measured in all samples (Attachment C, Table A1). The assumption that  $K_{OC} = K_{DOC}$  was used in order to calculate dissolved bifenthrin concentrations using total organic carbon, given that individual DOC and POC measurements were not recorded.<sup>5</sup>

The PWG applied both the acute and chronic evaluation guidelines for bifenthrin using recent 2015 evaluation guidelines (at the 5th percentile) developed by Central Valley Water Board staff (Fojut 2015). The chronic evaluation guideline was only applied if samples

<sup>5</sup> The equation used to calculate dissolved bifenthrin was reduced to:  $C_{dissolved} = C_{total} / (1 + (K_{DOC} \times [TOC]))$ , where  $C_{dissolved}$  equals the concentration of an individual pyrethroid in the freely dissolved phase (ng/L),  $C_{total}$  equals total concentration of an individual pyrethroid pesticide in water (ng/L),  $K_{DOC}$  equals organic carbon-water partition coefficient for the individual pyrethroid pesticide (L/kg), and  $[TOC]$  equals concentration of total organic carbon in the sample (kg/L).

were collected over four consecutive days, enabling the calculation of a four-day average concentration. There were 22 samples out of 936 collected by PWG in 2011-2014 that exceeded the UCD 5th percentile acute criterion of 0.8 ng/L for dissolved bifenthrin. The minimum number of measured exceedances needed to place a water segment on the 303(d) List for 936 samples is 81 exceedances, according to the Listing Policy. Due to the low number of exceedances, the 303(d) listing of bifenthrin on the American River is not warranted when using this newer data.

There was one storm event from February 7-10, 2014 that qualified for comparison to the chronic criterion at two sample locations. The four-day average dissolved bifenthrin concentration from those two locations was 0.16 ng/L, compared with the UCD 5th percentile chronic criterion of 0.1 ng/L. At this time, there is not adequate data available to accurately assess chronic bifenthrin concentrations in the American River. This is because samples collected by PWG from February 7-10, 2014 were based on one storm event at two locations, thereby providing no temporally independent bifenthrin concentrations in the American River, which is a key component required for listing a water body on the 303(d) List. (Listing Policy, at § 6.1.5.)

Overall, data collected from 2011-2014 suggests that ambient waters rarely exceed the acute criterion and that further sampling is needed to determine temporal variability in chronic concentrations of bifenthrin. At this time, we recommend against listing the American River on the revised 303(d) List for bifenthrin. However, continued monitoring of water in the American River is essential to gauging potential impacts to this water body.

#### **IV. Conclusion**

The PWG appreciates the opportunity to comment on the Central Valley Water Board's revised 303(d) List. As described above, the use of outdated data regarding pyrethroids in Kaseberg Creek, Pleasant Grove Creek, and the American River does not accurately reflect more recent conditions in these waterbodies, particularly following label changes for pyrethroid pesticides in 2012. The PWG also urges the Central Valley Water Board to update their calculated concentrations using more recent coefficient values for organic carbon, which will yield more accurate results. Further, the Central Valley Water Board should reexamine the conclusions it has drawn from toxicity testing with *Hyalella azteca* that did not include bifenthrin in American River water samples, that used unreliable toxicity endpoints, and that contained other toxicants that may have contributed to mortality. Finally, the chronic evaluation guideline should only be applied to those data that are actually gathered during a multiday sampling event, and should not be applied to a single sample, because a single sample cannot be considered a four-day average.

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Thank you for your consideration of these comments. If you have any questions, please contact me at (916) 446-7979, or [tdunham@somachlaw.com](mailto:tdunham@somachlaw.com).

Very truly yours,

*Bunk C Bass for*

Theresa A. Dunham

Enc.

BCB/TAD

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References:

- Amweg, E. L. and D. P. Weston. 2007. Whole-sediment toxicity identification evaluation tools for pyrethroid insecticides: I Piperonyl butoxide addition. *Environ. Toxcol. Chem.* 26: 2389-2396.
- Amweg, E. L., D. P. Weston, and N. M Ureda. 2005. Use and toxicity of pyrethroid pesticides in the Central Valley California, USA. *Environ. Toxicol. Chem.* 24: 966-972.
- Hall, L. W. Jr., W. D. Killen, R. D. Anderson and R. W. Alden III. 2013. An assessment of benthic communities and with concurrent physical habitat, pyrethroids, and metals analysis in Pleasant Grove Creek in 2013. PWG Report Number 14-PWG-04, Valdosta, GA.
- Hall, L. W. Jr., W. D. Killen, R. D. Anderson and R. W. Alden III. 2014. An assessment of benthic communities and with concurrent physical habitat, pyrethroids, and metals analysis in Pleasant Grove Creek in 2013. PWG Report, Valdosta, GA.
- Hall, L. W. Jr., W. D. Killen, R. D. Anderson and R. W. Alden III. 2015. An assessment of benthic communities and with concurrent physical habitat, pyrethroids, and metals analysis in Pleasant Grove Creek in 2013. PWG Report Number 15-PWG-03, Valdosta, GA.
- Hall, L. W. Jr., W. D. Killen, R. D. Anderson and R. W. Alden III. 2016. An assessment of benthic communities and with concurrent physical habitat, pyrethroids, and metals analysis in Pleasant Grove Creek in 2013. PWG Draft Report, Valdosta, GA.
- Regional Water Quality Control Board Central Valley Region. 2016. Clean Water Act Sections 305 (b) and 303 (d) 2014 Integrated Report for the Central Valley Region Draft Staff Report. California Regional Water Quality Control Board, Central Valley Region, Rancho Cordova, CA.
- State Water Resources Control Board. 2015. Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. State Water Resources Control Board, Sacramento, CA.
- Fojut TL. 2010. Water quality criteria report for bifenthrin. Central Valley Region Water Quality Control Board. Available at:  
[http://www.swrcb.ca.gov/rwqcb5/water\\_issues/tmdl/central\\_valley\\_projects/central\\_valley\\_pesticides/criteria\\_method/bifenthrin/final\\_bifenthrin\\_criteria\\_rpt.pdf](http://www.swrcb.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/central_valley_pesticides/criteria_method/bifenthrin/final_bifenthrin_criteria_rpt.pdf)
- Fojut TL. 2015. Water quality criteria report for bifenthrin. Updated report. May 2015. Central Valley Regional Water Quality Control Board. Available at:  
[http://www.swrcb.ca.gov/rwqcb5/water\\_issues/tmdl/central\\_valley\\_projects/central\\_valley\\_pesticides/criteria\\_method/index.shtml](http://www.swrcb.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/central_valley_pesticides/criteria_method/index.shtml)
- Laskowski DA. 2002. Physical and chemical properties of pyrethroids. In *Reviews of environmental contamination and toxicology* (pp. 49-170). Springer New York.
- Weston DP, Lydy MJ. 2010. Urban and agricultural sources of pyrethroid insecticides to the Sacramento-San Joaquin Delta of California. *Environmental science & technology*, 44(5), 1833-1840.
- Weston DP, Lydy MJ. 2012. Stormwater input of pyrethroid insecticides to an urban river. *Environmental Toxicology and Chemistry*, 31(7), 1579-1586.

## ATTACHMENT A

Table 1. Kaseburg Creek, tributary to Pleasant Grove creek, Placer County (PGC 10, 12, 14 and 15). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site Numbers				Sum	Result
	10	12	14	15		
Bifenthrin	3	4	4	4	$\geq 2$	Stays listed
Cyfluthrin	1	0	2	1	$\geq 2$	Stays listed
Lambda-cyhalothrin	0	0	0	1	$< 2$	Remove listing
Cypermethrin	1	1	4	3	$\geq 2$	Stays listed
Deltamethrin	1	0	0	2	$\geq 2$	Stays listed

Table 2. Kaseburg Creek unnamed eastern tributary from Green Cove Lane to Del Webb Boulevard, Placer County (PGC 11). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site 10	Sum	Result
Bifenthrin	4	$\geq 2$	Stays listed
Cyfluthrin	4	$\geq 2$	Stays listed
Lambda-cyhalothrin	2	$\geq 2$	Stays listed
Cypermethrin	3	$\geq 2$	Stays listed

Table 3. Kaseburg Creek unnamed southeastern tributary from Silverado Middle School to Timber Creek Golf Course, Placer County (PGC 17). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is < 2 the 303(d) listing is removed.

Pyrethroids	PGC Site 17	Sum	Result
Bifenthrin	4	$\geq 2$	Stays listed
Cyfluthrin	2	$\geq 2$	Stays listed
Lambda-cyhalothrin	3	$\geq 2$	Stays listed
Cypermethrin	3	$\geq 2$	Stays listed
Deltamethrin	3	$\geq 2$	Stays listed

Table 4. Kaseburg Creek unnamed southern tributary from Baseline Road to Timber Creek Golf Course, Placer County (PGC 16). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site 16	Sum	Result
Bifenthrin	2	$\geq 2$	Stays listed
Cyfluthrin	1	$< 2$	Remove listing
Lambda-cyhalothrin	2	$\geq 2$	Stays listed
Cypermethrin	3	$\geq 2$	Stays listed
Deltamethrin	2	$\geq 2$	Stays listed

Table 5. Pleasant Grove Creek, Placer and Sutter Counties (PGC 1, 4, 5, 6 and 7). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site Numbers					Sum	Result
	1	4	5	6	7		
Bifenthrin	3	3	3	3	4	$\geq 2$	Stays listed
Cypermethrin	0	0	0	0	0	$< 2$	Remove listing

Table 6. Pleasant Grove Creek South Branch, Placer County (PGC 18, 19, 20 and 21). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site Numbers				Sum	Result
	18	19	20	21		
Bifenthrin	4	4	4	4	$\geq 2$	Stays listed
Cyfluthrin	0	0	0	0	$< 2$	Remove listing
Cypermethrin	2	0	0	0	$\geq 2$	Stays listed
Deltamethrin	0	0	1	0	$< 2$	Remove listing

Table 7. Pleasant Grove Creek South Branch unnamed southeastern tributary, Placer County (PGC 22). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site 22	Sum	Result
Bifenthrin	4	$\geq 2$	Stays listed
Cyfluthrin	0	$< 2$	Remove listing
Cypermethrin	0	$< 2$	Remove listing

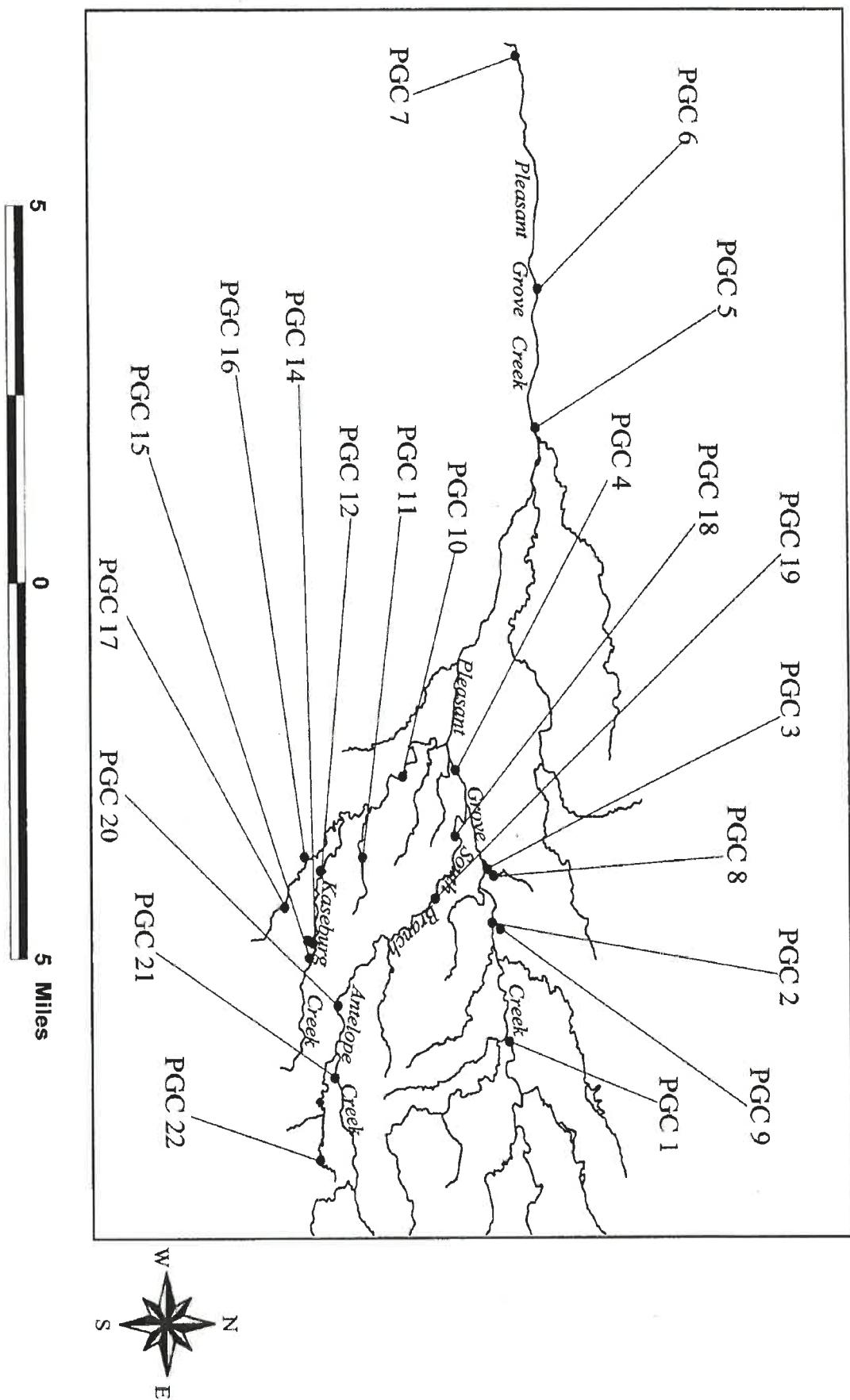
Table 8. Pleasant Grove Creek South Branch unnamed northern tributary from Greywood Circle to confluence with Pleasant Grove Creek, Placer County (PGC 9). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site 9	Sum	Result
Bifenthrin	3	$\geq 2$	Stays listed
Cyfluthrin	0	$< 2$	Remove listing
Cypermethrin	0	$< 2$	Remove listing

Table 9. Pleasant Grove Creek South Branch unnamed northern tributary, Mt. Tamalpas Drive to confluence with Pleasant Grove Creek, Placer County (PGC 3 and 8). Data from 2013, 2014, 2015 and 2016 was used with number of guideline exceedances for sediment pyrethroid concentrations. If sum is  $\geq 2$  the 303(d) listing would remain. If sum is  $< 2$  the 303(d) listing is removed.

Pyrethroids	PGC Site Numbers		Sum	Result
	3	8		
Bifenthrin	4	4	$\geq 2$	Stays listed
Cyfluthrin	1	3	$\geq 2$	Stays listed
Lambda-cyhalothrin	1	2	$\geq 2$	Stays listed
Cypermethrin	0	3	$\geq 2$	Stays listed
Deltamethrin	1	2	$\geq 2$	Stays listed

Figure 1. Pleasant Grove Creek (PGC) sample sites including Kaseberg Creek.



## **ATTACHMENT B**

Pyrethroid sediment concentration data ug/g OC for the 21 sites in Pleasant Grove Creek and Kaseberg Creek for 2013, 2014, 2015 and 2016 (Hall et al. 2013, 2014, 2015 and 2016). Exceedances of the Regional Board guideline values (1/10 of Hyalella LC50 values) for the various pyrethroids by site are presented.

Table A. Pleasant Grove Creek (PGC) exceedances (in bold) of Regional Board Guidelines for bifenthrin (0.043 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
PGC-01	0.113	<b>Yes</b>	0.038	No	0.167	<b>Yes</b>	0.056	<b>Yes</b>	3
PGC-02	ND	No	0.026	No	ND	No	0.043	<b>Yes</b>	1
PGC-03	1.128	<b>Yes</b>	1.145	<b>Yes</b>	1.325	<b>Yes</b>	0.240	<b>Yes</b>	4
PGC-04	0.175	<b>Yes</b>	0.033	No	0.124	<b>Yes</b>	0.025	No	3
PGC-05	0.306	<b>Yes</b>	0.068	<b>Yes</b>	0.025	No	0.086	<b>Yes</b>	3
PGC-06	0.108	<b>Yes</b>	0.025	No	0.054	<b>Yes</b>	0.065	<b>Yes</b>	3
PGC-07	0.077	<b>Yes</b>	0.049	<b>Yes</b>	0.073	<b>Yes</b>	0.047	<b>Yes</b>	4
PGC-08	6.660	<b>Yes</b>	2.547	<b>Yes</b>	1.198	<b>Yes</b>	1.390	<b>Yes</b>	4
PGC-09	0.340	<b>Yes</b>	0.030	No	0.280	<b>Yes</b>	0.117	<b>Yes</b>	3
PGC-10	ND	No	0.359	<b>Yes</b>	0.099	<b>Yes</b>	0.746	<b>Yes</b>	3
PGC-11	3.037	<b>Yes</b>	1.242	<b>Yes</b>	1.292	<b>Yes</b>	0.509	<b>Yes</b>	4
PGC-12	0.572	<b>Yes</b>	0.111	<b>Yes</b>	0.116	<b>Yes</b>	0.192	<b>Yes</b>	4
PGC-14	1.393	<b>Yes</b>	1.435	<b>Yes</b>	1.585	<b>Yes</b>	1.123	<b>Yes</b>	4
PGC-15	0.753	<b>Yes</b>	0.970	<b>Yes</b>	0.756	<b>Yes</b>	0.989	<b>Yes</b>	4
PGC-16	ND	No	3.791	<b>Yes</b>	0.039	No	1.867	<b>Yes</b>	2
PGC-17	2.304	<b>Yes</b>	1.311	<b>Yes</b>	1.446	<b>Yes</b>	0.291	<b>Yes</b>	4
PGC-18	0.246	<b>Yes</b>	0.107	<b>Yes</b>	0.088	<b>Yes</b>	0.590	<b>Yes</b>	4
PGC-19	0.100	<b>Yes</b>	0.100	<b>Yes</b>	0.058	<b>Yes</b>	0.122	<b>Yes</b>	4
PGC-20	0.735	<b>Yes</b>	0.652	<b>Yes</b>	0.343	<b>Yes</b>	0.458	<b>Yes</b>	4
PGC-21	0.495	<b>Yes</b>	0.296	<b>Yes</b>	0.209	<b>Yes</b>	0.280	<b>Yes</b>	4
PGC-22	0.384	<b>Yes</b>	0.123	<b>Yes</b>	0.152	<b>Yes</b>	0.151	<b>Yes</b>	4

Table B. Pleasant Grove Creek (PGC) exceedances (**in bold**) of Regional Board Guidelines for cyfluthrin (0.11 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
PGC-01	0.003	No	0.002	No	0.011	No	0.046	No	0
PGC-02	ND	No	ND	No	ND	No	ND	No	0
PGC-03	0.110	<b>Yes</b>	0.040	No	0.109	No	0.028	No	1
PGC-04	0.027	No	0.037	No	0.006	No	ND	No	0
PGC-05	0.007	No	0.003	No	ND	No	0.006	No	0
PGC-06	0.016	No	0.003	No	0.002	No	0.003	No	0
PGC-07	0.002	No	0.002	No	0.005	No	0.003	No	0
PGC-08	0.509	<b>Yes</b>	0.130	<b>Yes</b>	0.065	No	0.139	<b>Yes</b>	3
PGC-09	0.011	No	0.001	No	0.013	No	0.023	No	0
PGC-10	ND	No	0.035	No	ND	No	0.138	<b>Yes</b>	1
PGC-11	0.158	<b>Yes</b>	0.172	<b>Yes</b>	0.117	<b>Yes</b>	0.140	<b>Yes</b>	4
PGC-12	0.016	No	0.015	No	0.004	No	0.014	No	0
PGC-14	0.128	<b>Yes</b>	0.080	No	0.068	No	0.116	<b>Yes</b>	2
PGC-15	0.101	No	0.107	No	0.106	No	0.133	<b>Yes</b>	1
PGC-16	ND	No	0.152	<b>Yes</b>	0.002	No	0.106	No	1
PGC-17	0.137	<b>Yes</b>	0.089	No	0.216	<b>Yes</b>	0.029	No	2
PGC-18	0.014	No	0.001	No	ND	No	0.034	No	0
PGC-19	0.006	No	0.011	No	0.003	No	0.019	No	0
PGC-20	0.095	No	0.028	No	0.013	No	0.054	No	0
PGC-21	0.052	No	0.017	No	0.017	No	0.028	No	0
PGC-22	0.063	No	0.015	No	0.030	No	0.004	No	0

Table C. Pleasant Grove Creek (PGC) exceedances (in bold) of Regional Board Guidelines for cypermethrin (0.038 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
PGC-01	0.002	No	0.002	No	0.014	No	ND	No	0
PGC-02	ND	No	ND	No	ND	No	ND	No	0
PGC-03	0.037	No	0.025	No	0.035	No	0.007	No	0
PGC-04	ND	No	ND	No	0.006	No	ND	No	0
PGC-05	0.013	No	0.004	No	ND	No	0.002	No	0
PGC-06	0.006	No	0.002	No	0.003	No	0.004	No	0
PGC-07	0.007	No	0.003	No	0.004	No	ND	No	0
PGC-08	0.235	<b>Yes</b>	0.067	<b>Yes</b>	0.036	No	0.051	<b>Yes</b>	3
PGC-09	0.005	No	0.001	No	0.012	No	ND	No	0
PGC-10	ND	No	0.103	<b>Yes</b>	0.010	No	ND	No	1
PGC-11	0.082	<b>Yes</b>	0.050	<b>Yes</b>	0.042	<b>Yes</b>	0.033	No	3
PGC-12	0.013	No	0.003	No	0.002	No	0.045	<b>Yes</b>	1
PGC-14	0.081	<b>Yes</b>	0.055	<b>Yes</b>	0.044	<b>Yes</b>	0.042	<b>Yes</b>	4
PGC-15	0.065	<b>Yes</b>	0.064	<b>Yes</b>	0.033	No	0.044	<b>Yes</b>	3
PGC-16	ND	No	0.094	<b>Yes</b>	0.001	No	0.047	<b>Yes</b>	3
PGC-17	0.123	<b>Yes</b>	0.054	<b>Yes</b>	0.078	<b>Yes</b>	0.016	No	3
PGC-18	0.049	<b>Yes</b>	0.008	No	0.007	No	0.040	<b>Yes</b>	2
PGC-19	0.008	No	0.005	No	0.007	No	0.006	No	0
PGC-20	0.026	No	0.018	No	0.011	No	0.019	No	0
PGC-21	0.027	No	0.013	No	0.018	No	0.027	No	0
PGC-22	0.025	No	0.009	No	0.006	No	0.004	No	0

Table D. Pleasant Grove Creek (PGC) exceedances (**in bold**) of Regional Board Guidelines for lambda-cyhalothrin (0.045 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
PGC-01	0.002	No	0.001	No	0.005	No	0.001	No	0
PGC-02	ND	No	ND	No	ND	No	ND	No	0
PGC-03	0.047	<b>Yes</b>	0.041	No	0.042	No	0.012	No	1
PGC-04	0.009	No	ND	No	0.006	No	ND	No	0
PGC-05	0.016	No	0.004	No	0.002	No	0.004	No	0
PGC-06	0.012	No	0.004	No	0.008	No	0.005	No	0
PGC-07	0.064	<b>Yes</b>	0.013	No	0.057	<b>Yes</b>	0.016	No	2
PGC-08	0.246	<b>Yes</b>	0.084	No	0.022	No	0.029	No	2
PGC-09	0.005	No	0.001	No	0.003	No	0.002	No	0
PGC-10	ND	No	0.015	No	0.003	No	0.013	No	0
PGC-11	0.068	<b>Yes</b>	0.058	<b>Yes</b>	0.037	No	0.010	No	2
PGC-12	0.013	No	0.003	No	0.001	No	0.004	No	0
PGC-14	0.025	No	0.022	No	0.023	No	0.016	No	0
PGC-15	0.030	No	0.021	No	0.021	No	0.052	<b>Yes</b>	1
PGC-16	ND	No	0.070	<b>Yes</b>	0.001	No	0.067	<b>Yes</b>	2
PGC-17	0.106	<b>Yes</b>	0.155	<b>Yes</b>	0.065	<b>Yes</b>	0.007	No	3
PGC-18	0.008	No	0.001	No	0.002	No	0.005	No	0
PGC-19	0.006	No	0.005	No	0.016	No	0.004	No	0
PGC-20	0.021	No	0.009	No	0.006	No	0.013	No	0
PGC-21	0.013	No	0.005	No	0.008	No	0.007	No	0
PGC-22	0.018	No	0.003	No	0.004	No	0.003	No	0

Table E. Pleasant Grove Creek (PGC) exceedances (**in bold**) of Regional Board Guidelines for deltamethrin (0.079 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
PGC-01	0.020	No	0.002	No	0.022	No	ND	No	0
PGC-02	ND	No	ND	No	ND	No	ND	No	0
PGC-03	0.020	No	0.029	No	0.093	<b>Yes</b>	ND	No	1
PGC-04	ND	No	ND	No	0.024	No	ND	No	0
PGC-05	ND	No	0.004	No	ND	No	0.013	No	0
PGC-06	ND	No	0.002	No	0.002	No	0.009	No	0
PGC-07	ND	No	0.001	No	0.003	No	0.008	No	0
PGC-08	0.088	<b>Yes</b>	0.028	No	0.029	No	0.150	<b>Yes</b>	2
PGC-09	0.009	No	0.002	No	0.007	No	0.018	No	0
PGC-10	ND	No	0.022	No	ND	No	0.117	<b>Yes</b>	1
PGC-11	0.052	No	0.027	No	0.034	No	0.053	No	0
PGC-12	0.011	No	0.003	No	0.007	No	0.025	No	0
PGC-14	0.062	No	0.048	No	0.043	No	0.042	No	0
PGC-15	0.148	<b>Yes</b>	0.054	No	0.032	No	0.241	<b>Yes</b>	2
PGC-16	ND	No	0.166	<b>Yes</b>	ND	No	0.528	<b>Yes</b>	2
PGC-17	0.037	No	0.090	<b>Yes</b>	0.131	<b>Yes</b>	0.242	<b>Yes</b>	3
PGC-18	0.015	No	ND	No	0.004	No	0.047	No	0
PGC-19	ND	No	0.014	No	ND	No	0.040	No	0
PGC-20	0.049	No	0.028	No	0.011	No	0.123	<b>Yes</b>	1
PGC-21	0.039	No	0.046	No	0.035	No	0.073	No	0
PGC-22	0.012	No	0.009	No	0.021	No	0.031	No	0

Table F. Pleasant Grove Creek (PGC) exceedances (in **bold**) of Regional Board Guidelines for permethrin (1.1 µg/g OC) for the sample years 2013 – 2016.

Site	2013 µg/g OC	2013 Exceed?	2014 µg/g OC	2014 Exceed?	2015 µg/g OC	2015 Exceed?	2016 µg/g OC	2016 Exceed?	Total Exceedances
									2013
PGC-01	ND	No	0.004	No	0.032	No	ND	No	0
PGC-02	ND	No	ND	No	ND	No	ND	No	0
PGC-03	0.144	No	0.102	No	0.188	No	ND	No	0
PGC-04	ND	No	ND	No	ND	No	ND	No	0
PGC-05	ND	No	ND	No	ND	No	ND	No	0
PGC-06	ND	No	ND	No	ND	No	ND	No	0
PGC-07	ND	No	0.004	No	ND	No	ND	No	0
PGC-08	0.708	No	0.347	No	0.166	No	ND	No	0
PGC-09	ND	No	ND	No	0.016	No	ND	No	0
PGC-10	ND	No	0.048	No	ND	No	ND	No	0
PGC-11	0.225	No	0.065	No	0.187	No	0.039	No	0
PGC-12	0.039	No	0.008	No	0.005	No	ND	No	0
PGC-14	0.256	No	0.152	No	0.269	No	0.735	No	0
PGC-15	0.086	No	0.096	No	0.084	No	0.134	No	0
PGC-16	ND	No	0.885	No	ND	No	0.196	No	0
PGC-17	0.266	No	0.099	No	0.396	No	0.023	No	0
PGC-18	0.012	No	ND	No	ND	No	ND	No	0
PGC-19	0.024	No	0.006	No	0.038	No	0.015	No	0
PGC-20	0.088	No	0.045	No	0.029	No	0.039	No	0
PGC-21	0.069	No	0.026	No	0.043	No	0.028	No	0
PGC-22	0.033	No	0.006	No	0.011	No	ND	No	0

**ATTACHMENT C**

Table A1. Summary of the sample locations, collection date, total bifenthrin (bif) concentrations, total organic carbon (TOC), and calculated dissolved bifenthrin concentrations for samples collected by the Pyrethroid Working Group (PWG).

Sample location	Collection Date	Station ID	Event-Driven?	Total Bif (ng/L)	TOC (mg/L)	Calculated dissolved Bif (ng/L)
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-01	No	nd	1.4	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-02	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-03	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-04	No	nd	1.2	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-05	No	nd	1.2	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-06	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-07	No	nd	1.2	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-08	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-09	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-10	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-11	No	nd	1.2	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-12	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-13	No	nd	1.2	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-14	No	nd	1.3	nd
Downstream of Lake Natoma	10/18/2011	PWG-01-ARDLN-15	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-01	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-02	No	nd	1.2	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-03	No	nd	1.2	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-04	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-05	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-06	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-07	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-08	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-09	No	nd	1.2	nd

Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-13	No	nd	1.2	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-14	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-15	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-10	No	nd	1.4	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-11	No	nd	1.3	nd
Sunrise Avenue bridge	10/18/2011	PWG-01-ARSAB-12	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-01	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-02	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-03	No	nd	1.4	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-04	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-05	No	nd	1.2	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-06	No	nd	1.2	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-07	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-08	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-09	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-10	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-11	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-12	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-13	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-14	No	nd	1.3	nd
Watt Avenue Bridge	10/18/2011	PWG-01-ARWAB-15	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-01	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-02	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-03	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-04	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-05	No	nd	1.3	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-06	No	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-07	No	nd	1.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-08	No	nd	1.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-09	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-13	No	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-14	No	nd	1.8	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-15	No	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-10	No	nd	1.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-11	No	nd	1.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/19/2011	PWG-01-ARCSR-12	No	nd	1.2	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-01	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-02	No	nd	1.2	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-03	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-04	No	nd	1.2	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-05	No	nd	1.2	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-06	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-07	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-08	No	nd	1.2	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-09	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-13	No	nd	1.4	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-14	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-15	No	nd	1.4	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-10	No	nd	1.3	nd

Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-11	No	nd	1.3	nd
Upstream of Business 80 bridge	10/19/2011	PWG-01-ARB80-12	No	nd	1.4	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-01	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-02	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-03	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-04	No	nd	1.4	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-05	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-06	No	nd	1.2	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-07	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-08	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-09	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-13	No	nd	1.2	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-14	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-15	No	nd	1.3	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-10	No	nd	1.2	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-11	No	nd	1.4	nd
Discovery Park upstream of Sacramento River	10/19/2011	PWG-01-ARDPK-12	No	nd	1.2	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-01	No	nd	1.4	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-02	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-03	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-04	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-05	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-06	No	nd	1.4	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-07	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-08	No	nd	1.5	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-09	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-13	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-14	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-15	No	nd	1.3	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-10	No	nd	1.2	nd
Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-11	No	nd	1.4	nd

Downstream of Sump 11 storm drain discharge point	10/19/2011	PWG-01-ARSOE-12	No	nd	1.3	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-01	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-01	No	nd	1.2	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-03	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-02	No	nd	1.1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-04	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-06	No	nd	0.98	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-03	No	nd	1.1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-07	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-04	No	nd	1.1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-08	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-09	No	nd	1.1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-05	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-10	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARDLN-06	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARB80-11	No	nd	0.97	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARB80-12	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARDLN-07	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-08	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARB80-13	No	nd	1	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARDLN-09	No	nd	1.1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARB80-15	No	nd	0.98	nd
Upstream of Business 80 bridge	1/18/2012	PWG-02-ARDLN-10	No	nd	1.1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-11	No	nd	1.1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-12	No	nd	1.2	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-13	No	nd	1	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-14	No	nd	0.99	nd
Downstream of Lake Natoma	1/18/2012	PWG-02-ARDLN-15	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-01	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-02	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-03	No	nd	1.1	nd

Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-04	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-05	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-06	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-07	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-08	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-09	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-10	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-11	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-12	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-13	No	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-14	No	nd	1	nd
Discovery Park upstream of Sacramento River	1/18/2012	PWG-02-ARDPK-15	No	nd	1.1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-01	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-03	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-04	No	nd	1.1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-05	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-06	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-07	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-08	No	nd	0.99	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-09	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-10	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-01	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-02	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-03	No	nd	1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-11	No	nd	1.1	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-12	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-04	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-05	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-06	No	nd	0.98	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-13	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-07	No	nd	1	nd

Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-08	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSAB-09	No	nd	0.98	nd
Sunrise Avenue Bridge	1/18/2012	PWG-02-ARSAB-15	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-10	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-11	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-12	No	nd	1.1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-13	No	nd	1	nd
Downstream of Sump 11 storm drain discharge point	1/18/2012	PWG-02-ARSOE-15	No	nd	1	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-01	No	nd	0.99	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-02	No	nd	0.97	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-03	No	nd	1.5	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-04	No	nd	0.98	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-06	No	nd	0.99	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-07	No	nd	1	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-09	No	nd	1.2	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-10	No	nd	1	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-12	No	nd	0.99	nd
Watt Avenue Bridge	1/18/2012	PWG-02-ARWAB-13	No	nd	1	nd
Watt Avenue Bridge	1/20/2012	PWG-03-ARDLN-01	Yes	nd	1.3	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-02	Yes	nd	0.98	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-03	Yes	nd	1	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-04	Yes	nd	1.1	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-05	Yes	nd	1.1	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-06	Yes	nd	1.1	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-01	Yes	0.7	1.7	0.18
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-03	Yes	0.7	1.6	0.19
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-07	Yes	1.4	1.1	0.48
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-08	Yes	nd	1.5	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-04	Yes	0.7	1.6	0.19
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-09	Yes	nd	1.2	nd

Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-06	Yes	0.5	1.6	0.13
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-10	Yes	nd	1.2	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-07	Yes	0.8	1.7	0.20
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-11	Yes	nd	1.1	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-08	Yes	1.2	1.7	0.30
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-09	Yes	1.1	1.8	0.27
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-12	Yes	nd	1.1	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-10	Yes	1.8	2	0.40
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-11	Yes	2.4	1.7	0.61
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-12	Yes	1.8	1.8	0.44
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-13	Yes	nd	1.1	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-14	Yes	nd	1.2	nd
Downstream of Lake Natoma	1/20/2012	PWG-03-ARDLN-15	Yes	nd	1.4	nd
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-13	Yes	2	1.9	0.47
Upstream of Business 80 bridge	1/20/2012	PWG-03-ARB80-15	Yes	1.4	2.1	0.30
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-01	Yes	0.5	1.6	0.13
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-02	Yes	0.5	1.6	0.13
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-03	Yes	5.8	1.6	1.53
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-04	Yes	0.4	1.7	0.10
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-05	Yes	0.4	1.7	0.10
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-06	Yes	0.6	1.9	0.14
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-01	Yes	nd	1.1	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-02	Yes	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARSAB-03	Yes	nd	1.6	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-04	Yes	nd	1.1	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARDPK-07	Yes	0.5	1.9	0.12
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-05	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-08	Yes	nd	1.7	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-09	Yes	0.7	1.8	0.17
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-06	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-10	Yes	0.7	1.9	0.16

Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-07	Yes	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-11	Yes	0.5	1.7	0.13
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-12	Yes	nd	1.5	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-08	Yes	nd	1.1	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-09	Yes	nd	1.1	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-13	Yes	0.4	1.5	0.11
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-14	Yes	0.4	1.5	0.11
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-10	Yes	nd	1.2	nd
Discovery Park upstream of Sacramento River	1/20/2012	PWG-03-ARDPK-15	Yes	nd	1.7	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-11	Yes	nd	1.2	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-12	Yes	nd	1.1	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-13	Yes	nd	1	nd
Sunrise Avenue Bridge	1/20/2012	PWG-03-ARSAB-15	Yes	nd	1.2	nd
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-01	Yes	0.5	1.5	0.14
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-02	Yes	0.4	1.5	0.11
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-03	Yes	0.4	1.6	0.11
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-04	Yes	0.5	1.5	0.14
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-01	Yes	2.6	1.3	0.80
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-05	Yes	0.7	1.7	0.18
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-06	Yes	0.9	1.9	0.21
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-03	Yes	1.8	1.3	0.55
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-07	Yes	1.4	1.9	0.33
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-04	Yes	2.7	1.3	0.83
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-06	Yes	3	1.2	0.97
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-10	Yes	0.8	1.8	0.19
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-07	Yes	2.6	1.2	0.84
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-11	Yes	1	1.6	0.26
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-12	Yes	0.9	1.6	0.24
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-08	Yes	2.6	1.2	0.84

Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-09	Yes	2.3	1.2	0.75
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-13	Yes	1.8	1.8	0.44
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-10	Yes	1.3	1.5	0.36
Downstream of Sump 11 storm drain discharge point	1/20/2012	PWG-03-ARSOE-15	Yes	1.7	1.7	0.43
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-12	Yes	1.1	1.4	0.32
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-13	Yes	1.6	1.3	0.49
Watt Avenue Bridge	1/20/2012	PWG-03-ARWAB-15	Yes	2.5	1.5	0.69
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-01	Yes	1.2	1.5	0.33
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-01	Yes	nd	1.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-02	Yes	1.3	1.5	0.36
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-02	Yes	nd	1.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-03	Yes	1.2	1.5	0.33
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-03	Yes	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-04	Yes	1	1.4	0.29
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-04	Yes	nd	1.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-05	Yes	1.2	1.7	0.30
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-05	Yes	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-06	Yes	0.8	1.4	0.23
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-06	Yes	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-07	Yes	1	1.4	0.29
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-07	Yes	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-08	Yes	0.9	1.4	0.26
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-08	Yes	nd	1.4	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-09	Yes	0.8	1.4	0.23
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-09	Yes	nd	2	nd
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-10	Yes	nd	1.3	nd
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-11	Yes	nd	1.3	nd
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-12	Yes	nd	1.4	nd
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-13	Yes	nd	1.3	nd
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-14	Yes	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-13	Yes	0.7	1.4	0.20
Downstream of Lake Natoma	2/13/2012	PWG-04-ARDLN-15	Yes	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-15	Yes	0.7	1.5	0.19
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-10	Yes	0.8	1.4	0.23
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/13/2012	PWG-04-ARCSR-12	Yes	0.7	1.4	0.20
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-01	Yes	0.9	1.6	0.24
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-02	Yes	1.1	1.5	0.31
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-03	Yes	0.9	1.5	0.25
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-04	Yes	0.9	1.5	0.25
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-05	Yes	1	1.5	0.28
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-06	Yes	1.3	1.6	0.34
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-07	Yes	1.1	1.7	0.28
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-08	Yes	0.9	1.5	0.25
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-09	Yes	1	1.5	0.28
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-10	Yes	0.7	1.6	0.19
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-11	Yes	1	1.6	0.26
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-12	Yes	0.9	1.6	0.24
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-01	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-02	Yes	nd	1.4	nd
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-13	Yes	0.9	1.4	0.26

Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-03	Yes	nd	1.4	nd
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-14	Yes	1.1	1.4	0.32
Upstream of Business 80 bridge	2/13/2012	PWG-04-ARB80-15	Yes	0.9	1.4	0.26
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-04	Yes	nd	1.5	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-05	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-06	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-07	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-08	Yes	nd	1.3	nd
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-01	Yes	0.9	1.6	0.24
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-09	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-02	Yes	0.9	1.8	0.22
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-03	Yes	0.9	1.6	0.24
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-10	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-11	Yes	nd	1.3	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-15	Yes	nd	4.6	nd
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-04	Yes	1.6	1.6	0.42
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-12	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-05	Yes	1	1.7	0.25
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-06	Yes	1.2	1.5	0.33
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-13	Yes	nd	1.4	nd
Sunrise Avenue Bridge	2/13/2012	PWG-04-ARSAB-14	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-07	Yes	1.2	1.6	0.32
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-08	Yes	1.4	1.5	0.39
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-09	Yes	1.1	1.5	0.31
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-10	Yes	1.2	1.5	0.33
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-11	Yes	1.6	1.5	0.44
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-12	Yes	1.3	1.6	0.34
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-13	Yes	0.9	1.5	0.25
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-14	Yes	1.2	1.6	0.32
Discovery Park upstream of Sacramento River	2/13/2012	PWG-04-ARDPK-15	Yes	1.1	1.7	0.28
Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-01	Yes	nd	1.4	nd

	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-02	Yes	0.4	1.4	0.12
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-01	Yes	1	1.6	0.26
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-02	Yes	0.9	1.6	0.24
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-03	Yes	nd	1.4	nd
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-03	Yes	0.8	1.6	0.21
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-04	Yes	nd	1.4	nd
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-05	Yes	0.4	1.4	0.12
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-04	Yes	0.9	1.6	0.24
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-05	Yes	0.8	1.5	0.22
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-06	Yes	nd	1.3	nd
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-06	Yes	0.8	1.6	0.21
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-07	Yes	nd	1.4	nd
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-08	Yes	nd	1.4	nd
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-07	Yes	0.9	1.5	0.25
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-08	Yes	0.9	1.5	0.25
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-09	Yes	0.9	1.5	0.25
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-09	Yes	nd	1.4	nd
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-10	Yes	nd	1.5	nd
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-10	Yes	0.7	1.6	0.19
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-11	Yes	0.9	1.6	0.24
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-12	Yes	nd	1.3	nd
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-12	Yes	0.9	1.5	0.25
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-13	Yes	1.1	1.5	0.31
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-13	Yes	0.4	1.4	0.12
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-14	Yes	0.6	1.5	0.17
	Downstream of Sump 11 storm drain discharge point	2/13/2012	PWG-04-ARSOE-15	Yes	0.9	1.5	0.25
	Watt Avenue Bridge	2/13/2012	PWG-04-ARWAB-15	Yes	0.4	1.5	0.11
	Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-01	Yes	nd	1.2	nd
	Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-02	Yes	nd	1.1	nd
	Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-03	Yes	nd	1.1	nd
	Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-04	Yes	nd	1.1	nd

Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-05	Yes	nd	1	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-06	Yes	nd	1.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-01	Yes	6.2	2.8	1.06
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-02	Yes	7.8	2.9	1.29
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARDLN-07	Yes	nd	1.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-03	Yes	7	3	1.13
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-08	Yes	nd	1.2	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-09	Yes	nd	1.1	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-10	Yes	nd	1.2	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-11	Yes	nd	1.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-04	Yes	4.7	2.4	0.91
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-12	Yes	nd	1.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-05	Yes	3.7	2.4	0.72
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-06	Yes	4.2	2.3	0.84
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-13	Yes	nd	1.1	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-14	Yes	nd	1.1	nd
Downstream of Lake Natoma	3/14/2012	PWG-05-ARDLN-15	Yes	nd	1.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-07	Yes	1.5	1.7	0.38
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-08	Yes	2	1.8	0.48
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-09	Yes	2.1	1.9	0.49
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-10	Yes	1.2	1.6	0.32
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-12	Yes	1.6	1.6	0.42

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARCSR-13	Yes	2.3	1.8	0.56
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/14/2012	PWG-05-ARSAB-01	Yes	2.1	1.8	0.51
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-02	Yes	nd	1.2	0.13
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-03	Yes	nd	1.2	nd
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARB80-01	Yes	4	2.1	0.86
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARSAB-04	Yes	0.4	1.3	0.12
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARB80-02	Yes	3.7	2.1	0.80
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-03	Yes	3.8	2.1	0.82
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARSAB-05	Yes	nd	1.2	nd
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-06	Yes	nd	1.2	nd
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-07	Yes	0.7	1.2	0.23
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-04	Yes	4.1	2	0.92
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-08	Yes	0.4	1.2	0.13
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-05	Yes	4.2	2.1	0.90
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-06	Yes	5.3	2	1.18
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-09	Yes	nd	1.2	nd
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-10	Yes	nd	1.1	nd
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-11	Yes	0.8	1.3	0.25
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-07	Yes	3.9	2	0.87
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-12	Yes	nd	1.2	nd
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-08	Yes	5.7	1.9	1.33
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-09	Yes	6	1.9	1.40
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-13	Yes	0.8	1.1	0.27
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-14	Yes	0.9	1.2	0.29
Sunrise Avenue Bridge	3/14/2012	PWG-05-ARSAB-15	Yes	0.5	1.3	0.15
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-10	Yes	4.3	2.1	0.93
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-11	Yes	4.8	1.9	1.12
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-12	Yes	4.1	1.8	0.99

Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-13	Yes	3.1	1.9	0.72
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-14	Yes	3	1.8	0.73
Upstream of Business 80 bridge	3/14/2012	PWG-05-ARB80-15	Yes	4.7	1.8	1.14
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-01	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-02	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-03	Yes	0.4	1.4	0.12
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-04	Yes	0.4	1.4	0.12
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-05	Yes	0.4	1.5	0.11
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-06	Yes	nd	1.4	nd
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-07	Yes	nd	1.4	nd
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-01	Yes	2.7	1.6	0.71
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-08	Yes	0.5	1.5	0.14
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-09	Yes	0.6	1.5	0.17
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-02	Yes	1.8	1.6	0.48
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-03	Yes	2	1.6	0.53
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-10	Yes	0.3	1.4	0.09
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-04	Yes	1.8	1.6	0.48
Watt Avenue Bridge	3/14/2012	PWG-05-ARDPK-11	Yes	0.4	1.5	0.11
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-12	Yes	0.6	1.6	0.16
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARWAB-05	Yes	2.2	1.7	0.56
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-06	Yes	2.1	1.5	0.58
Watt Avenue Bridge	3/14/2012	PWG-05-ARDPK-13	Yes	nd	1.3	nd
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-14	Yes	0.4	1.3	0.12
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-07	Yes	2	1.7	0.51
Discovery Park upstream of Sacramento River	3/14/2012	PWG-05-ARDPK-15	Yes	0.5	1.7	0.13
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-08	Yes	2.1	1.6	0.56
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-09	Yes	1.8	1.7	0.46
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-10	Yes	2.1	1.9	0.49
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-12	Yes	2.2	1.7	0.56
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-01	Yes	nd	1.5	nd
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-13	Yes	2.8	1.7	0.71

Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-02	Yes	nd	1.4	nd
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-03	Yes	0.7	1.3	0.21
Watt Avenue Bridge	3/14/2012	PWG-05-ARWAB-15	Yes	2.8	2	0.63
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-04	Yes	0.8	1.5	0.22
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-05	Yes	0.6	1.4	0.17
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-06	Yes	0.8	1.5	0.22
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-07	Yes	0.8	1.6	0.21
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-08	Yes	1.1	1.7	0.28
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-09	Yes	1.1	1.7	0.28
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-10	Yes	1	1.9	0.23
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-11	Yes	1.1	1.7	0.28
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-12	Yes	0.9	1.8	0.22
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-13	Yes	0.6	1.6	0.16
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-14	Yes	0.8	1.6	0.21
Downstream of Sump 11 storm drain discharge point	3/14/2012	PWG-05-ARSOE-15	Yes	0.9	1.6	0.24
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-02	No	nd	1.5	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-04	No	nd	1.6	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-06	No	nd	1.7	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-07	No	nd	1.6	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-09	No	nd	1.8	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-10	No	nd	1.6	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-12	No	nd	1.7	nd
Downstream of Lake Natoma	5/21/2012	PWG-06-ARDLN-14	No	nd	1.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-02	No	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-04	No	nd	1.8	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-06	No	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-07	No	nd	1.7	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-09	No	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-10	No	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-12	No	nd	1.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	5/21/2012	PWG-06-ARCSR-14	No	nd	1.6	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-02	No	nd	1.6	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-04	No	nd	1.6	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-06	No	nd	1.8	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-07	No	nd	1.9	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-09	No	nd	1.8	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-10	No	nd	1.8	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-12	No	nd	1.8	nd
Upstream of Business 80 bridge	5/21/2012	PWG-06-ARB80-14	No	nd	2	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-02	No	nd	1.7	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-04	No	nd	1.8	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-06	No	nd	1.7	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-07	No	nd	1.7	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-09	No	nd	1.6	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-02	No	nd	1.6	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-10	No	nd	1.7	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-04	No	nd	1.6	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-12	No	nd	1.7	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-06	No	nd	1.7	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-07	No	nd	1.5	nd
Sunrise Avenue Bridge	5/21/2012	PWG-06-ARSAB-14	No	nd	1.6	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-09	No	nd	1.7	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-10	No	nd	1.6	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-12	No	nd	1.8	nd
Discovery Park upstream of Sacramento River	5/21/2012	PWG-06-ARDPK-14	No	nd	1.7	nd

Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-02	No	nd	1.8	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-04	No	nd	1.6	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-06	No	nd	1.7	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-02	No	nd	1.7	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-07	No	nd	1.7	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-09	No	nd	1.6	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-04	No	nd	1.7	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-06	No	0.3	1.7	0.08
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-07	No	nd	1.8	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-10	No	nd	1.7	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-09	No	nd	1.7	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-12	No	nd	1.7	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-10	No	nd	1.6	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-12	No	nd	1.7	nd
Watt Avenue Bridge	5/21/2012	PWG-06-ARWAB-14	No	nd	1.7	nd
Downstream of Sump 11 storm drain discharge point	5/21/2012	PWG-06-ARSOE-14	No	nd	1.6	nd
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-01	Yes	nd	1.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-01	Yes	3.6	28	0.07
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-02	Yes	nd	1.3	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-02	Yes	2.7	12	0.12
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-03	Yes	nd	1.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-03	Yes	2	9.5	0.11
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-04	Yes	nd	1.6	nd
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-05	Yes	nd	1.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-04	Yes	1.6	8	0.11
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-06	Yes	nd	1.6	nd
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-07	Yes	0.5	1.8	0.12
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-08	Yes	nd	1.8	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-05	Yes	2	7.2	0.15
Sunrise Avenue Bridge	10/22/2012	PWG-07-ARSAB-09	Yes	nd	2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-06	Yes	1	6.5	0.08
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-07	Yes	2	6.5	0.16
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-08	Yes	0.8	6.6	0.06
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	10/22/2012	PWG-07-ARCSR-09	Yes	0.9	6.3	0.08
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-01	Yes	3.3	9.2	0.19
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-02	Yes	2.3	8.8	0.14
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-03	Yes	2.6	9.5	0.15
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-04	Yes	1.7	8.6	0.11
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-05	Yes	1.5	8.3	0.10
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-06	Yes	2	7.8	0.14
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-07	Yes	1.5	7.8	0.10
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-08	Yes	1.5	7.5	0.11
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARB80-09	Yes	2.1	7.7	0.15
Upstream of Business 80 bridge	10/22/2012	PWG-07-ARWAB-01	Yes	1.2	4.8	0.13
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-02	Yes	2.5	4.7	0.27
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-03	Yes	1.4	4.8	0.15
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-01	Yes	2.5	9.6	0.14
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-02	Yes	1.8	8.7	0.11
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-04	Yes	1.6	5.4	0.15
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-03	Yes	2.5	8.6	0.16
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-04	Yes	1.8	8.8	0.11
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-05	Yes	2.1	5.3	0.21
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-05	Yes	2.1	8.4	0.13
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-06	Yes	2.1	8.4	0.13
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-06	Yes	1.7	5.5	0.16

Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-07	Yes	2	8.3	0.13
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-07	Yes	1.3	5.6	0.12
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-08	Yes	1.8	8.6	0.11
Discovery Park upstream of Sacramento River	10/22/2012	PWG-07-ARDPK-09	Yes	1.7	8.7	0.11
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-08	Yes	1.5	5.8	0.14
Watt Avenue Bridge	10/22/2012	PWG-07-ARWAB-09	Yes	1.6	5.8	0.14
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-01	Yes	1.5	9.1	0.09
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-02	Yes	2.6	9	0.16
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-03	Yes	1.9	8.9	0.12
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-04	Yes	1.9	9	0.11
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-05	Yes	2.1	8.3	0.14
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-06	Yes	1.3	8.2	0.09
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-07	Yes	2	8.4	0.13
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-08	Yes	2	8.5	0.13
Downstream of Sump 11 storm drain discharge point	10/22/2012	PWG-07-ARSOE-09	Yes	2.2	8.5	0.14
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-01	Yes	nd	1.2	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-02	Yes	nd	1.4	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-03	Yes	nd	2.6	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-04	Yes	nd	1.6	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-05	Yes	nd	2.2	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-06	Yes	nd	2.4	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-07	Yes	nd	1.4	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-08	Yes	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-01	Yes	nd	1.5	nd
Sunrise Avenue Bridge	11/29/2012	PWG-08-ARSAB-09	Yes	nd	2.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-02	Yes	0.3	2.2	0.06
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-03	Yes	0.5	2.1	0.11
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-04	Yes	0.4	2	0.09

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-05	Yes	0.3	1.6	0.08
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-06	Yes	0.4	1.7	0.10
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-07	Yes	nd	1.8	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-08	Yes	0.4	1.7	0.10
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/29/2012	PWG-08-ARCSR-09	Yes	nd	1.5	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-01	Yes	nd	1.9	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-01	Yes	nd	1.5	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-02	Yes	nd	1.6	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-03	Yes	nd	1.5	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-02	Yes	nd	2.5	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-04	Yes	nd	1.9	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-03	Yes	nd	1.9	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-04	Yes	nd	1.8	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-05	Yes	nd	2	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-05	Yes	nd	1.5	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-06	Yes	nd	4.6	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-06	Yes	nd	1.7	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-07	Yes	nd	2	nd
Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-08	Yes	0.5	2	0.11
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARB80-07	Yes	nd	2.1	nd
Upstream of Business 80 bridge Watt Avenue Bridge	11/29/2012	PWG-08-ARWAB-09	Yes	nd	3.5	nd
Upstream of Business 80 bridge Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-01	Yes	0.4	2	0.09
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-02	Yes	nd	2	nd
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-03	Yes	0.5	1.9	0.12
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-04	Yes	0.3	1.9	0.07

Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-05	Yes	nd	2.5	nd
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-06	Yes	nd	1.7	nd
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-07	Yes	0.5	1.9	0.12
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-08	Yes	0.8	2.1	0.17
Discovery Park upstream of Sacramento River	11/29/2012	PWG-08-ARDPK-09	Yes	nd	2	nd
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-01	Yes	0.6	1.8	0.15
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-02	Yes	0.5	1.8	0.12
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-03	Yes	nd	2.1	nd
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-04	Yes	1.8	1.9	0.42
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-05	Yes	1.1	1.8	0.27
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-06	Yes	nd	1.8	nd
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-07	Yes	1.4	1.8	0.34
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-08	Yes	0.4	1.7	0.10
Downstream of Sump 11 storm drain discharge point	11/29/2012	PWG-08-ARSOE-09	Yes	nd	2.3	nd
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-01	Yes	nd	2.5	nd
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-02	Yes	nd	2.2	nd
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-03	Yes	nd	3.6	nd
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-04	Yes	nd	3.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-01	Yes	1.6	3.8	0.21
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-05	Yes	nd	3.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-02	Yes	1.2	3.1	0.19
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-03	Yes	0.9	2.5	0.17
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-06	Yes	nd	3.2	nd
Sunrise Avenue Bridge	3/20/2013	PWG-09-ARSAB-07	Yes	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-04	Yes	0.6	2.7	0.11
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-05	Yes	0.7	2.2	0.15

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-06	Yes	0.4	2.3	0.08
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-07	Yes	0.5	2.2	0.10
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-08	Yes	0.4	2.3	0.08
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	3/20/2013	PWG-09-ARCSR-09	Yes	nd	2.2	nd
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-01	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-02	Yes	0.5	2.4	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-03	Yes	1.5	3.2	0.23
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-04	Yes	0.6	3.5	0.08
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-05	Yes	0.5	5.3	0.05
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-06	Yes	0.7	2.8	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-07	Yes	0.6	2.8	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-08	Yes	1	2.6	0.18
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-09	Yes	1	3.1	0.16
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-10	Yes	0.8	2.3	0.16
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-11	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-12	Yes	0.5	2.3	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-13	Yes	0.6	2.4	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-14	Yes	0.7	2.5	0.13
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-15	Yes	0.8	2.5	0.15
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-16	Yes	0.9	2.4	0.17
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-17	Yes	0.5	2.2	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-18	Yes	nd	2.2	nd
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-19	Yes	0.5	2.4	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-20	Yes	0.5	2.2	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-21	Yes	0.5	2.5	0.09
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-22	Yes	0.8	2.4	0.15
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-23	Yes	0.6	2.7	0.11
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-24	Yes	0.8	2.5	0.15

American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-25	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-26	Yes	0.5	2.3	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-27	Yes	0.6	2.4	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-28	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-29	Yes	0.7	2.3	0.14
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-30	Yes	0.8	2.3	0.16
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-31	Yes	0.8	2	0.18
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-32	Yes	0.7	2.6	0.13
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-33	Yes	0.8	2.3	0.16
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-34	Yes	0.7	2.5	0.13
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-35	Yes	0.6	2.4	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-36	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-37	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-38	Yes	0.7	2.2	0.15
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-39	Yes	0.6	2.4	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-40	Yes	0.6	2.3	0.12
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-41	Yes	0.7	2.4	0.14
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-42	Yes	0.7	2.3	0.14
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-43	Yes	0.7	2.5	0.13
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-44	Yes	0.5	2.3	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-45	Yes	0.6	2.8	0.10
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-46	Yes	0.5	2.9	0.08
American River Inter-Transect Study	3/20/2013	PWG-09-ARITS-47	Yes	0.5	2.4	0.10
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-01	Yes	0.5	2.8	0.09
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-02	Yes	0.4	2.7	0.07
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-01	Yes	0.5	4.4	0.06
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-03	Yes	0.7	2.6	0.13
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-02	Yes	0.9	5.3	0.09
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-03	Yes	0.6	6.8	0.05
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-04	Yes	0.6	2.8	0.10
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-04	Yes	0.5	4.2	0.06

Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-05	Yes	0.4	3	0.06
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-05	Yes	0.6	2.4	0.12
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-06	Yes	0.5	3	0.08
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-06	Yes	0.5	2.7	0.09
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-07	Yes	0.4	2.4	0.08
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-08	Yes	0.7	2.3	0.14
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-07	Yes	0.4	2.8	0.07
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-09	Yes	0.7	2.3	0.14
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-08	Yes	0.4	2.7	0.07
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-10	Yes	0.4	12	0.02
Discovery Park upstream of Sacramento River	3/20/2013	PWG-09-ARDPK-09	Yes	0.3	2.5	0.06
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-11	Yes	0.5	3.4	0.07
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-12	Yes	0.4	2.6	0.07
Upstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-01	Yes	0.4	6	0.04
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-13	Yes	0.5	2.4	0.10
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-14	Yes	0.5	3.9	0.06
Upstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-02	Yes	0.4	3	0.06
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-15	Yes	0.5	2.3	0.10
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-16	Yes	0.4	2.4	0.08
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-03	Yes	0.6	3.4	0.09
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-17	Yes	0.5	2.3	0.10
Upstream of Business 80 bridge	3/20/2013	PWG-09-ARB80-18	Yes	0.5	2.4	0.10
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-04	Yes	0.5	3.1	0.08
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-05	Yes	0.5	3	0.08
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-06	Yes	0.8	2.8	0.14
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-07	Yes	0.4	2.7	0.07
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-08	Yes	0.5	3.2	0.08
Downstream of Sump 11 storm drain discharge point	3/20/2013	PWG-09-ARSOE-09	Yes	0.4	2.8	0.07
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-01	No	nd	2.7	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-02	No	nd	2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-03	No	nd	2.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-04	No	nd	3.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-05	No	nd	2.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-06	No	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-07	No	nd	2.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-08	No	nd	3.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/24/2013	PWG-11.1-ARCSR-09	No	nd	2.6	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-01	No	nd	6.9	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-02	No	nd	9.6	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-03	No	nd	9.6	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-04	No	nd	6.8	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-05	No	nd	4.6	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-06	No	nd	5.3	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-07	No	nd	5.9	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-08	No	nd	8.4	nd
Upstream of Business 80 bridge	6/24/2013	PWG-11.1-ARB80-09	No	nd	4.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-01	Yes	0.5	7.9	0.03
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-02	Yes	0.4	5.2	0.04
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-03	Yes	nd	2.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-04	Yes	nd	2.8	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-05	Yes	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-06	Yes	nd	2.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-07	Yes	nd	2.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-08	Yes	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2-ARCSR-09	Yes	nd	2	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-01	Yes	nd	8.7	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-02	Yes	nd	5.9	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-03	Yes	nd	3.8	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-04	Yes	0.4	3.4	0.06
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-05	Yes	nd	3.3	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-06	Yes	nd	2.2	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-07	Yes	nd	2.4	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-08	Yes	nd	3	nd
Upstream of Business 80 bridge	6/25/2013	PWG-11.2-ARB80-09	Yes	nd	2.7	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-01	Yes	4.8	4.1	0.59
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-02	Yes	nd	2.9	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-03	Yes	nd	2.5	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-04	Yes	nd	3	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-05	Yes	nd	2.3	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-06	Yes	nd	1.8	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-07	Yes	nd	2.6	nd
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-08	Yes	0.6	1.9	0.14
Discovery Park upstream of Sacramento River	6/25/2013	PWG-11.2-ARDPK-09	Yes	nd	1.8	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-01	Yes	nd	3.3	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-02	Yes	nd	4.2	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-03	Yes	nd	3.4	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-04	Yes	nd	3.4	nd

Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-05	Yes	nd	3.2	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-06	Yes	nd	5.8	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-07	Yes	nd	2.7	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-08	Yes	nd	3.7	nd
Downstream of Sump 11 storm drain discharge point	6/25/2013	PWG-11.2-ARSOE-09	Yes	nd	2.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-01	Yes	nd	2.8	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-02	Yes	nd	3.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-03	Yes	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-04	Yes	nd	2.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-05	Yes	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-06	Yes	nd	3.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-07	Yes	nd	3.2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-08	Yes	nd	2	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/25/2013	PWG-11.2.2-ARCSR-09	Yes	nd	1.8	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-01	Yes	nd	3.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-02	Yes	nd	3.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-03	Yes	nd	2.6	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-04	Yes	nd	4.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-05	Yes	nd	1.5	nd

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-06	Yes	nd	1.7	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-07	Yes	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-08	Yes	nd	2.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	6/26/2013	PWG-11.3-ARCSR-09	Yes	nd	1.6	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-01	Yes	nd	3.9	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-02	Yes	nd	2	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-03	Yes	nd	2.4	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-04	Yes	nd	2	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-05	Yes	nd	2.4	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-06	Yes	nd	2	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-07	Yes	nd	1.8	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-08	Yes	nd	1.9	nd
Upstream of Business 80 bridge	6/26/2013	PWG-11.3-ARB80-09	Yes	nd	2.1	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/19/2013	PWG-13.1-ARCSR-T01	No	nd	1.7	nd
Upstream of Business 80 bridge	11/19/2013	PWG-13.1-ARB80-T01	No	nd	1.7	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-01	Yes	nd	1.9	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-02	Yes	nd	1.5	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-03	Yes	nd	1.6	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-04	Yes	nd	1.5	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-05	Yes	nd	1.9	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-06	Yes	nd	1.8	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-07	Yes	nd	1.8	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-08	Yes	nd	1.8	nd
Sunrise Avenue Bridge	11/20/2013	PWG-13.2-ARSAB-09	Yes	nd	1.9	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-01	Yes	1.1	5.6	0.10

Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-T01	Yes	1	5.1	0.10
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-02	Yes	0.9	4.9	0.09
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-03	Yes	0.9	4.3	0.11
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-04	Yes	0.8	4.4	0.09
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-05	Yes	0.7	4	0.09
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-06	Yes	0.9	3.8	0.12
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-07	Yes	0.6	3.8	0.08
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-01	Yes	0.6	3.5	0.08
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-08	Yes	0.9	4	0.11
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/20/2013	PWG-13.2-ARCSR-09	Yes	1	3.9	0.13
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-02	Yes	0.7	3.4	0.10
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-03	Yes	0.8	3.3	0.12
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-04	Yes	0.5	3.1	0.08
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-05	Yes	0.7	3.3	0.10
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-06	Yes	0.7	3.4	0.10
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-01	Yes	1.3	7.1	0.10
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-07	Yes	0.5	3.3	0.07
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-02	Yes	1	7.8	0.07
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-03	Yes	1	5.9	0.09
Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-08	Yes	1	3.6	0.14
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-04	Yes	1.1	5.1	0.11
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-05	Yes	1.1	4.8	0.12
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-06	Yes	1.2	4.6	0.13

Watt Avenue Bridge	11/20/2013	PWG-13.2-ARWAB-09	Yes	0.7	3.6	0.10
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-07	Yes	1.6	4.8	0.17
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-08	Yes	0.9	4.7	0.10
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-T01	Yes	1.3	4.1	0.16
Upstream of Business 80 bridge	11/20/2013	PWG-13.2-ARB80-09	Yes	0.9	4.9	0.09
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-01	Yes	1.4	11	0.07
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-02	Yes	1.1	9.8	0.06
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-03	Yes	1.7	7.6	0.12
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-04	Yes	1.4	6	0.12
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-05	Yes	1.1	6	0.10
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-06	Yes	1.9	5.1	0.19
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-07	Yes	1.2	5.4	0.12
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-08	Yes	0.7	4.9	0.07
Discovery Park upstream of Sacramento River	11/20/2013	PWG-13.2-ARDPK-09	Yes	0.9	5.1	0.09
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-01	Yes	1.1	18	0.03
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-02	Yes	1.1	12	0.05
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-03	Yes	0.9	9.7	0.05
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-04	Yes	1.4	8.2	0.09
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-05	Yes	0.9	9.5	0.05
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-06	Yes	1.1	5.6	0.10
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-07	Yes	0.9	5.4	0.09
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-08	Yes	1	5.3	0.10
Downstream of Sump 11 storm drain discharge point	11/20/2013	PWG-13.2-ARSOE-09	Yes	0.9	5	0.09
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/21/2013	PWG-13.3-ARCSR-T01	Yes	nd	1.9	nd
Upstream of Business 80 bridge	11/21/2013	PWG-13.3-ARB80-T01	Yes	nd	2.4	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	11/22/2013	PWG-13.4-ARCSR-T01	Yes	nd	1.7	nd
Upstream of Business 80 bridge	11/22/2013	PWG-13.4-ARB80-T01	Yes	nd	1.5	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/7/2014	PWG-14.1-ARCSR-T01	No	nd	3.2	nd

Upstream of Business 80 bridge	2/7/2014	PWG-14.1-ARB80-T01	No	nd	1.5		nd	nd
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-01	Yes	nd	3.3		nd	nd
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-02	Yes	nd	2.2		nd	nd
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-03	Yes	nd	2.4		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-01	Yes	1.8	3.5	0.25		
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-04	Yes	nd	2.2		nd	nd
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-05	Yes	nd	3.4		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-02	Yes	1.8	2.4		0.35	
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-06	Yes	nd	1.8		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-T01	Yes	1.8	6.4		0.15	
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-07	Yes	nd	2.6		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-03	Yes	1.9	4.9		0.20	
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-08	Yes	nd	2.4		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-04	Yes	1.5	3.9		0.19	
Sunrise Avenue Bridge	2/8/2014	PWG-14.2-ARSAB-09	Yes	nd	2.6		nd	nd
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-05	Yes	0.8	2.9		0.13	
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-06	Yes	0.6	3.1		0.09	
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-07	Yes	0.5	6.9		0.04	
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-08	Yes	0.9	2.8		0.15	
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/8/2014	PWG-14.2-ARCSR-09	Yes	1	1.6		0.26	
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-01	Yes	1.2	4.9		0.13	
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-02	Yes	1.1	4.6		0.12	
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-03	Yes	1.4	3.6		0.19	

Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-01	Yes	1.2	8.2	0.08
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-04	Yes	1.4	7.6	0.10
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-02	Yes	1.2	6.1	0.10
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-05	Yes	1.1	5.7	0.10
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-03	Yes	1.1	4.1	0.14
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-04	Yes	1.2	7.7	0.08
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-06	Yes	0.6	6.1	0.05
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-05	Yes	1.9	5.6	0.18
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-07	Yes	0.7	4.7	0.08
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-06	Yes	1.7	6.6	0.14
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-08	Yes	0.6	2.9	0.10
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-07	Yes	1.7	4.7	0.19
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-08	Yes	2.8	4.2	0.34
Watt Avenue Bridge	2/8/2014	PWG-14.2-ARWAB-09	Yes	0.7	2.1	0.15
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-T01	Yes	1.9	3	0.31
Upstream of Business 80 bridge	2/8/2014	PWG-14.2-ARB80-09	Yes	1.7	3.8	0.22
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-01	Yes	0.4	8.2	0.03
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-02	Yes	0.5	4.2	0.06
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-03	Yes	0.3	3.4	0.04
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-04	Yes	0.4	3.5	0.06
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-05	Yes	0.3	2.1	0.06
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-06	Yes	nd	2.6	nd
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-07	Yes	0.5	3.4	0.07
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-08	Yes	0.4	1.9	0.09
Discovery Park upstream of Sacramento River	2/8/2014	PWG-14.2-ARDPK-09	Yes	0.4	1.8	0.10
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-01	Yes	0.4	5.8	0.04
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-02	Yes	0.4	6.2	0.03
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-03	Yes	0.3	2.1	0.06
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-04	Yes	0.3	2.4	0.06
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-05	Yes	nd	7.7	nd
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-06	Yes	0.6	2.7	0.11

Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-07	Yes	0.4	3.2	0.06
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-08	Yes	0.4	7.7	0.03
Downstream of Sump 11 storm drain discharge point	2/8/2014	PWG-14.2-ARSOE-09	Yes	0.4	3.9	0.05
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/9/2014	PWG-14.3-ARCSR-T01	Yes	4.1	11	0.20
Upstream of Business 80 bridge	2/9/2014	PWG-14.3-ARB80-T01	Yes	2.4	5.6	0.22
Downstream of Chicken Ranch/Strong Ranch Slough storm drain discharge point	2/10/2014	PWG-14.4-ARCSR-T01	Yes	0.6	3	0.10
Upstream of Business 80 bridge	2/10/2014	PWG-14.4-ARB80-T01	Yes	0.6	2.2	0.12